

**REMARKS****Status of the Claims**

Claims 15, 18 and 19 are pending. Claims 15, 18 and 19 are rejected. Claim 15 is amended herein. Claims 1-14, 16-17 and 20-38 were canceled previously. New claims 39-40 are added. No new matter is added in any claim amendment.

**Claim amendments**

Claim 15 is amended to limit diagnosing a lytic bone disease to a disease that is treatable by decreasing DKK-1 expression (pg. 6, ll. 20-21; pg. 16, ll. 16-18; pg. 18, ll. 17-19). No new matter is added in this amendment.

New claim 39 is added which corresponds to original independent claim 15 incorporating the limitations of dependent claim 19 to recite diagnosing a DKK1-associated lytic bone disease in an individual "having multiple myeloma". New claim 40 depends from new independent claim 39 and corresponds exactly to original claim 18. No new matter is added in new claims 39-40.

**The 35 U.S.C. §112, First Paragraph Rejection**

Claims 15 and 18 are rejected under 35 U.S.C. §112, first paragraph, for lacking enablement. Applicant respectfully traverses this rejection.

The Examiner states the instant specification is enabling for a method of diagnosing a DKK-1 associated lytic bone disease in an individual having multiple myeloma, comprising examining the expression level of the human homologue of DKK-1 protein. The Examiner states, however, that the instant specification does not reasonably provide enablement for a method of diagnosing any and/or all Wnt antagonist-associated lytic bone diseases in any test individual, comprising examining the expression level of the human homologue of DKK-1 protein in said test individual. The Examiner further states that the specification does not enable any person skilled in the art to which it pertains or with which it is most nearly connected to make and/or use the invention commensurate in scope with these claims.

Applicant has amended independent claim 15 as discussed supra. Amended claim 15 is now limited to diagnosing a lytic bone disease, treatable by inhibiting DKK-1 expression, in an individual having multiple myeloma, as stated by the Examiner. The instant specification discloses that lytic bone disease can occur prior to formation of multiple myeloma (pg. 3, ll. 11-13) and that DKK-1 is a molecular determinant for lytic bone disease and how to measure the same (pg. 5, ll. 7-16). Also, Applicants have demonstrated that a DKK-1 antibody blocks the repressive activity of DKK-1 in C2C12 cells (pg. 16, ll. 16-18; pg. 54, ll. 11-18; Fig. 41A-41B).

Also, Applicants submit that diagnosis usually does not occur in a vacuum and that, without undue experimentation, one of ordinary skill in the art would be able to identify those individuals for which a determination of DKK-1 expression levels should be performed to diagnose a lytic bone disease which would respond to a DKK-1 inhibitory treatment, e.g., multiple myeloma and/or osteoporosis, given the disclosure in the

specification, as discussed supra. The specification provides sufficient guidance that DKK-1 overexpression is associated with lytic bone diseases.

Thus, Applicants submit that claims 15 and 18 are enabled. As claim 18 depends from amended independent claim 15, Applicant submits that claim 18 is now enabled in view of the amendment to independent claim 15. Accordingly, Applicant respectfully requests that the rejection of claims 15 and 18 under 35 U.S.C. §112, first paragraph, be withdrawn.

Double Patenting rejection

Claims 15 and 18-19 remain provisionally rejected on the ground of non-statutory obviousness-type double patenting a being unpatentable over claims 1-3 of co-pending Application No. 11/176,739. Applicant respectfully traverses this rejection.

Applicant includes herewith a Terminal Disclaimer under 37 C.F.R. §1.20(d). Accordingly, Applicant respectfully requests that the provisional double patenting rejection of claims 15 and 18-19 be withdrawn.

This is intended to be a complete response to the Final Office Action, mailed February 26, 2007. Applicants submit that claims 15, 18-19 and new claims 39-40 are in condition for allowance and respectfully request that claims 15, 18-19 and 39-40 be passed to issuance. If any issues remain, the Examiner is respectfully requested to telephone the undersigned attorney of record for immediate resolution.

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Applicants attach herewith a Request for Continued Examination under 37 C.F.R. §1.114, a Terminal Disclaimer under 37 C.F.R. §1.20(d) and a Petition for a Three Month Extension of Time under 37 C.F.R. §1.136(a). Please charge the total \$970 fee (\$395 RCE fee, \$65 Terminal Disclaimer fee and \$510 extension fee) to the credit card identified on the Form PTO-2038 included herewith. Only in the absence of Form PTO-2038, please debit any applicable fees from Deposit Account No. 07-1185 upon which the undersigned attorney is allowed to draw.

Respectfully submitted,

Date: Aug. 27, 2007  
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